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POSTAL RATE COMMISSION
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

UNITED STATES POSTAL SERVICE
FOLLOW-UP INTERROGATORIES AND REQUESTS FOR PRODUCTION OF
DOCUMENTS TO OCA WITNESS EWEN
(USPS/OCA-T5-30-37)

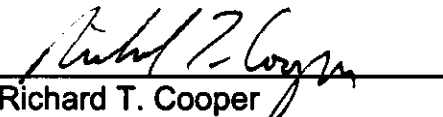
Pursuant to rules 25 and 26 of the Rules of Practice and Procedure, the United States Postal Service directs the following follow-up interrogatories and requests for production of documents to OCA witness Ewen: USPS/OCA-T5-30-37.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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June 27, 2000

USPS/OCA-T5-30. Please refer to your response to USPS/OCA-T5-2(c) where you state:

In covering a previously uncovered stop, I presume the carrier engages in typical mail loading activities. As such, a certain increment of the total load time required to complete these activities will be dependent upon the volume delivered at the stop. The elemental load time variability analysis captures this proportion.

- a. Please list in detail each and every "typical mail loading activity" in which the carrier engages at a previously uncovered stop. For each activity, indicate whether the time is volume related or not volume related.
- b. Please confirm that you are stating that "a certain increment of total load time required to complete these activities" is dependent on the volume delivered at the stop. If you do not confirm, please explain the precise meaning of the second sentence of this quotation.
- c. Please confirm that the incontrovertible logic of this statement is that "a certain increment of total load time required to complete these activities" is not dependent upon the volume delivered at the stop. If you do not confirm please explain and justify the use of the words "a certain increment" in the second sentence of this quotation.
- d. Please confirm that in this quotation you identify the activities dependent upon the volume delivered at the stop as being captured by the "elemental load time variability analysis." If you do not confirm please explain the sentence that states "The elemental load time variability analysis captures this proportion."
- e. Please confirm that this must mean that the activities not dependent upon the volume delivered at the stop are not captured by the elemental load time variability analysis.
- f. Please confirm that the total volume variable load time at a stop is the sum of the elemental and volume-variable coverage-related load time at that stop. If you do not confirm, please indicate the source of additional volume variable load time at a stop.
- g. Please confirm that the sum of elemental and volume-variable coverage-related load time at a stop is less than the total accrued load time at that stop. If you do not confirm, please explain why the load time variability is less than 100 percent.

USPS/OCA-T5-31. Please refer to your response to USPS/OCA-T5-2(c) where you state:

The remaining increment of time, commonly referred to as coverage-related load time, may be in part influenced by system-level volume effects or other non-volume-related factors (e.g. receptacle type)

- a. Please confirm that this quotation implies that coverage-related load time is not influenced by volume at the stop, although it may be influenced by system volume. If you do not confirm, then please answer the following:
 - (1) Please explain the operational basis for concluding that coverage-related load time is influenced by volume at the stop.
 - (2) Please show how the effect of volume on coverage-related load time at the stop is different than the effect of volume on elemental load time at the stop.
- b. Please confirm that the total load time on a route is the total load time on the stops on that route. If you do not confirm, please explain how the total load time on a route can be greater than or less than the sum of the load times of the stops on that route.
- c. Please confirm that system-level volume can influence the load time on a route as well as the load time at an individual stop.
- d. Please confirm that the way that system-wide volume can influence coverage-related load time is through creating a covered stop that was previously uncovered. If you do not confirm, please explain in detail the way in which system-wide volume influences coverage-related load time. Please recognize that stating, "Understanding exactly how coverage-related load-time manifests itself in the act of loading mail is not necessary" is not responsive to this interrogatory.

USPS/OCA-T5-32. Please refer to your response to USPS/OCA-T5-1 where you confirm that:

If a variable X is independent of another variable Y, then X is fixed with respect to changes in Y

Please also refer to USPS/OCA-T5-3 where you state:

"It is this disconnect that invalidates Witness Baron's leap from coverage-related load time being "independent of" volume at a stop to it being "fixed with respect to " this volume.

Please assume that the variable Y represents the volume at a stop and the variable X represents the coverage related load time at that stop. Confirm that if X (coverage related load time at the stop) is independent of Y(volume at the stop) then X (coverage related load time at the stop) is fixed with respect to changes in Y (volume at the stop). If you do not confirm, please provide a definition both intuitive and mathematical of independence that allows X to be independent of Y but still vary with respect to Y.

USPS/OCA-T5-33. Please refer to USPS/OCA-T5-8 where you state:

I do not know exactly what mix of load-related activities a carrier might engage in that would represent coverage-related load time. However, this knowledge is not necessary to effectively implement the Commission's approach.

- a. Do you know any load-related activities a carrier might engage in that would represent coverage-related load time?
- b. Please provide a list of load activities you do know of that the carrier might engage in that would represent coverage-related load time, even if this list is not "exact." Please show how these coverage-related load time activities differ from the elemental load time activities.

USPS/OCA-T5-34. Please refer to USPS/OCA-T5-4 where you state:

Understanding exactly how coverage-related load-time manifests itself in the act of loading mail is not necessary, since the Commission has adopted the technique of attributing coverage-related load-time using single subclass stop ratios.

- a. Confirm that it is your testimony that the use of single subclass ratios precludes the need for understanding how coverage-related load time is generated from the act of loading mail. If you do not confirm, please explain in detail how coverage-related load time is generated from the act of loading mail.
- b. Is it your testimony that the use of statistical measurement methodology (like single subclass stop ratios) precludes the need for understanding the process generating the costs being measured? .

USPS/OCA-T5-35. Please refer to USPS/OCA-T5-9 where, in referring to "the requirement that the elemental and coverage-related components within load time must be regarded as 'distinct, separately identified' actions," you state:

In contrast, the established Commission approach does not need to incorporate this requirement into the estimation of

load-time variability, since the statistical procedure employed implicitly captures the mix of activities occurring during a load and accurately estimates how they are influenced by volume.

- a. Is the "statistical procedure" you refer to the estimating of the SDR, MDR, and BAM regression models? If not, please precisely define what "statistical procedure" you are referring to.
- b. Please demonstrate mathematically how the statistical procedure you refer to "implicitly captures the mix of activities occurring during a load and accurately estimates how they are influenced by volume."
- c. Please provide the criteria by which you established that the statistical procedure accurately estimates how the "mix of activities" is influenced by volume. Please include both the standards of accuracy you used in this evaluation and the evidence confirming that the statistical procedure meets or exceeds this standard.
- d. Did you review the statistical properties of the load time regression models?
- e. Consider the following simple example.

Five pieces of mail are loaded at a single delivery residential stop. The elemental load time variability with respect to these pieces is 50%, and total load time at the stop is 10 seconds. Further, suppose that 1 more (additional) piece is now delivered at this stop.

- i. Please explain within the context of the following simple numerical example how the statistical procedure employed by the established Commission approach implicitly captures the mix of activities occurring during a load and accurately estimates how these activities are influenced by volume.
 - ii. What is the effect on elemental load time of delivering this additional piece?
 - iii. What is the effect on coverage-related load time of delivering this additional piece?
- f. Confirm that it is your testimony that the use of statistical procedure eliminates the need for understanding the underlying operational activities that gives rise to the cost being measured.

USPS/OCA-T5-36. Please refer to your response to USPS/OCA-T5-4. This interrogatory asked you to explain fully the engineering concept to which the

Commission's residual measure of coverage-related load time corresponds. In your answer, you state that you "presume that the term, engineering concept, in this context correlates with the 'activity-based functional approach' witness Baron refers to in allocating total accrued street-time costs across major street-time activities." For purposes of this follow-up interrogatory, please now presume that the term, "engineering concept" means what you thought it meant when, quoting the Commission at page 11, lines 2-3 of your testimony, you claim that witness Baron's fixed-time at stop measure "does not correspond to any engineering concept, operational reality, or empirical data that witness Baron can identify."

- a. Given the meaning of the term "engineering concept" as used in this citation from page 11, lines 2-3 of your testimony, please explain fully the engineering concept, if any, to which the Commission's residual measure of coverage-related load time corresponds. (Note: this residual measure is accrued load time minus elemental load time).
- b. Does the meaning of the term "engineering concept" as used in the citation from page 11, lines 2-3 of your testimony "correlate with the activity-based functional approach?" Please explain fully.

USPS/OCA-T5-37. Please refer to your response to USPS/OCA-T5-7. You state:

In addition, the LTV study collected detailed data at the stop level on load time, stop type, receptacle/container type, shape/volume components, and possible deliveries. This information is sufficient to estimate how load time varies with respect to these variables. Used in concert, the ES and LTV studies capture the direct and indirect effects of volume changes, which is the prerequisite for their use for ratemaking purposes.

Please show how the ES and/or LTV studies – either alone or in concert - quantify the effects of variations in "shape/volume components" on the residual measure of coverage-related load time. Please include in this demonstration answers to the following:

- a. Do the ES and/or LTV studies show that the residual measure of coverage-related load time per piece varies by shape category? For example, do the studies show that coverage-related load time per piece is higher for flats than for letters, and higher for parcels than for flats? If so, please present specific results showing how coverage-related load time per piece varies by shape, and how the residual measure of coverage-related load time "captures" this variation.
- b. Does the single-subclass stop method of distributing coverage-related load time costs across mail subclass capture the effect of variation in shape/volume components on coverage-related load? If yes, please explain how this single subclass method captures this effect.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.



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